REMARKS

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendments, claims 16, 23-30 and 41-55 are pending in the application, with claims 1-22 and 31-40 having been withdrawn by the Examiner. Claims 23 and 26 are independent claims. Claims 1-15, 17-22, and 30-40 have been cancelled without prejudice or disclaimer. Support for the subject matter of the amended claims and the new claims is contained in the application as originally filed. Because the foregoing changes introduce no new matter, their entry is respectfully requested.

Based on the above Amendment and the following Remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102

Claims 23-30 and 41-51

The Examiner has rejected claims 23-30 and 41-51 under 35 U.S.C. § 102 as being anticipated by U.S. Patent Application Publication No. US 2001/0048899 A1 to Marouiss et al. ("the Marouiss application"), U.S. Patent Application Publication No. US 2004/0033554 to Powers ("the Powers application"), U.S. Patent No. 5,443,791 to Cathcart et al. ("the Cathcart patent"), U.S. Patent No. 4,764,342 to Kelin et al. ("the Kelin patent"), and U.S. Patent No. 4,478,094 to Salomaa et al. ("the Salomaa patent"). The Marouiss application, the Powers application, the Cathcart patent, the Kelin patent, and the Salomaa patent, taken individually or combined, fail to teach or suggest the system of the present invention of claim 23, which calls for:

> a head assembly including a fluid transfer device;
> a drive mechanism connected to the head assembly for moving the head assembly along a vertical sample delivery axis;
> a tip loading station positioned along the sample delivery axis where disposable tips can be temporarily attached and detached to and from the fluid transfer device;

a tip carrier assembly that is moveable in a direction perpendicular to the sample delivery axis to and from the tip loading station; and

an examination site positioned along the sample delivery axis and vertically displaced from the tip loading station, wherein the fluid transfer device can be moved along the sample delivery axis to pick up tips at the tip loading station and to deliver fluid to the examination site

Nor do the Marouiss application, the Powers application, the Cathcart patent, the Kelin patent, and the Salomaa patent, individually or combined, teach or suggest the system of the present invention of claim 26, which calls for:

a head assembly including a pipette device;

a drive mechanism connected to the head assembly for moving the head assembly along a vertical sample delivery axis;

a first pipetting station positioned along the sample delivery axis where the pipette device can dispense and aspirate fluid to and from a container;

a fluid carrier assembly that is moveable in a direction perpendicular to the sample delivery axis to and from the first pipetting station; and

an examination site positioned along the sample delivery axis and vertically displaced from the first pipetting station, wherein the pipette device can be moved along the sample delivery axis to pick up fluid at the first pipetting station and to deliver fluid to the examination site.

The Marouiss application does not disclose such features. Instead, the Marouiss application discloses an integrated sample-processing system that includes an intrasite driver 2300 that is configured to horizontally move samples between I/O, function and transfer sites. *See* paragraph 131; FIG. 23. Driver 2300 includes sets of lifters 2308a and 2308b which are horizontally disposed from one another. *See* id. As such, the various sites are not vertically displaced above one another, and thus the Marouiss application fails to anticipate the present invention. In fact, the Marouiss application teaches away from the present invention in that the lifters 2308a and 2308b are linearly arranged along a lift platform 2302 and base 2306. *See* paragraph 132.

Nor does the Powers application disclose such features. Instead, the Powers application discloses an automated semi-solid matrix assay and liquid handler apparatus that includes a horizontally translatable table 10 and a vertically translatable head 12. *See* paragraph 218; FIG. 2. Head 12 supports a plunger assembly 34, while table 10 supports a plurality of workstations

100, 102, etc. *See* paragraph 222; FIG. 2. As such, the workstations disclosed by the Powers application are not vertically displaced from one another, and thus the Powers application fails to anticipate the present invention. In fact, the Powers application teaches away from the present invention in that the Powers application teaches that the workstations are preferably arranged linearly along the length of the table. *See* paragraph 223.

Similarly, the Cathcart patent teaches away from the present invention. Cathcart discloses an automated molecular biology laboratory including a thermal cycling station 21, an enzyme storage station 23, a wash station 25, a reagent storage position 27, a DNA sample stage 28, a wash buffer storage 30, and two magnetic particle wash stations 26 and 29, all horizontally disposed from one another on a work surface 22. *See* FIG. 1. As none of the stations are vertically disposed with one another, none can horizontally overlap one another. Accordingly, width D1 and depth D2 are dictated by the acculative widths and depths of the various stations. In any event, the Cathcart patent fails to teach or suggest the vertical arrangement of workstations, much less vertical arrangment along the sample delivery axis.

As the Salamaa patent discloses a liquid sample handling system (*see* FIG. 1) that is substantially identical to that disclosed by the Powers application (*see* FIG. 1), the Salamaa patent fails to teach or suggest the present invention for at least the same reasons as the Powers application noted above.

The Kelin patent discloses a reagent handling system in which a supply station 104, a loading table 108, a transfer mechanism 112, an analysis station 114, and a used rotor station 118 are horizontally distributed within an analysis compartment 100. As such, the Kelin patent fails to teach or suggest vertical arrangement of various work stations, much less vertical arrangement along the sample delivery axis.

In contrast, the system of the present invention includes a head assembly (e.g., dispense assembly 600; *see* FIG. 6) that moves along a vertical sample delivery axis, as shown in FIG. 2A. The system also includes tip loading and pipetting stations (e.g., material exchange system 552; FIG. 5) positioned along the sample delivery axis, as shown in FIG. 2A. The material

exchange system may include one carriage configured to accommodate pipette tips and another configured to accommodate a microplate for reagents. *See*, e.g., paragraph 69; FIG. 2A ("MATERIAL EXCHANGE AXES"). The system further includes an examination site (e.g., sample-plate holding fixture 1101; FIG. 11) that is also positioned along the sample delivery axis, as shown in FIG. 2A.

As the tip loading and pipetting stations are vertically displaced from the examination site, they may horizontally "overlap" the examination site and thus reduce the footprint of the device. For example, in one embodiment of the present invention, the sample-plate holding fixture 1101, as well as the associated analysis hardware, are vertically disposed below the material exchange system. As such, the dispense assembly 600 may address both the material exchange system 552 and the sample plate supported by holding fixture 1101 as it moves along the vertical sample delivery axis. *See* FIG. 2A. Unlike the prior art, however, the material exchange systems 552 horizontally overlap one another, and horizontally overlap holding fixture 1101. The overlapping configuration of the present invention significantly reduces the footprint of the system.

For at least these reasons, Applicants respectfully submit that neither the Marouiss and Powers applications, nor the Cathcart, Kelin and Salomaa patents, anticipate independent claims 23 or 26. Applicants submit that claims 24 , 25, 27-30, and 41-51, which depend from one of claims 23 and 26, are allowable over the cited art for at least the same reasons noted above.

Applicants further submit that new claims 52-55 depending directly or indirectly from claims 23 and 26, and are thus allowable for at least the same reasons as claims 23 and 26 noted above.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action

and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided below.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extension of time or additional claims, and/or credit any overpayment to Deposit Account No. 50-2319 (Order No. 469390-00087; Docket No. 186115/US/3/DJB/VEJ).

Prompt and favorable consideration of this Amendment and Response is respectfully requested.

Respectfully submitted,

DORSEY & WHITNEY LLP

Date: October 11, 2005 By: _____

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